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09/538,785	03/30/2000	Kenneth D. Ceola	A39.2-8766	8197

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EXAMINER

LOFDAHL, JORDAN M

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Application Number: 09/538,785  
Filing Date: March 30, 2000  
Appellant(s): CEOLA, KENNETH D.

Richard Arrett  
For Appellant

*Supplemental*

EXAMINER'S ANSWER

This is in response to the appeal brief filed 5/2/02 and supplemental brief filed 11/12/04.

**(1) Real Party in Interest**

A statement identifying the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) Status of Claims**

The statement of the status of the claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Invention**

The summary of invention contained in the brief is correct.

**(6) Issues**

The appellant's statement of the issues in the brief is correct.

**(7) Grouping of Claims**

Appellant's brief includes a statement that claims 1-14 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

**(8) Claims Appealed**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) Prior Art of Record**

5,497,704	Kurschner et al.	3-1996
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3,608,494	Ziembra	9-1971
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**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-6 are rejected under 35 U.S.C. 102. This rejection is set forth in a prior Office Action, mailed on 12/11/01.

Claims 7-14 are rejected under 35 U.S.C. 103. This rejection is set forth in a prior Office Action, mailed on 12/11/01.

**(11) Response to Argument**

Claim 1:

Applicants specification defines a safety and arming (S & A) device as a required element to ensure that the munition is not armed and detonated until the desired time and that it is part of the fuze and prevents arming of the fuze until certain conditions are met (page 1, lines 11-14). The abstract and figure 1 of Kurschner et al. (5497704) describes a fuze which has parts that can also be read as a S & A device.

Kurschner, discloses a magnetic sensing apparatus (magnetic fuze, fig. 1) for determining the occurrence of a muzzle exit (as admitted in applicant disclosure page 3, lines 9-11) and a predetermined number or turns (col. 2, lines 24-37) whereby the fuze is armed (it is inherent that the fuze is armed to detonate the projectile) upon the occurrence of the two events. The fuze will not detonate the projectile (and inherently the fuze will not be armed) if the projectile has not exited the muzzle and reached a

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predetermined number of turns. The muzzle exit is also inherently determined by the magnetic fuze. The magnetic fuze determines the number of turns only if it can detect when the projectile exited the muzzle.

Claim 2:

Kurschner discloses a timer (44) and the at least two events occur in a predetermined order. It is inherent that the muzzle exit occurs before the predetermined number of turns are calculated.

Claim 3:

Disclosed is a predetermined time window from muzzle exit to predetermined number of turns (claim 18(f)). The projectile is expected to detonate due to a predetermined time window from the muzzle exit to a predetermined number of turns.

Claim 4:

Disclosed is a magnetically sensed muzzle exit and predetermined number of turns.

Claim 5:

Disclosed is a spin rate and a predetermined number of turns (abstract).

Claim 6:

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Disclosed is a muzzle exit, a predetermined spin rate and a predetermined number of turns (abstract).

Claim 7:

Disclosed is single magnetic sensor (20) which can also detect setback. The fuze includes functions that are required by present standards (col. 1-2, lines 60-11) (ie MIL-STD-1316) such as two unique environments being detected. The first usually being setback (applicants specification, page 1, lines 15-19. The muzzle exit is read as the second environment (col. 7, lines 43-46) and setback is inherently read as the first environment.

Claim 8:

Disclosed is a fuze inherently armed only if the muzzle exit occurs. Not disclosed is a predetermined time window from when setback occurs. It is readily quantifiable to determine a time window from when setback occurs to muzzle exit in advance from known manufactured weight of the projectile, the amount of explosive to propel the projectile, the length of the muzzle, etc.

Claim 9:

Disclosed is the fuze inherently being armed only if it reaches a predetermined spin rate within a predetermined time window. The turns to burst detonation is based on a predetermined time window (col. 2, lines 1-11). Not disclosed is the predetermined spin

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rate between a predetermined minimum and maximum spin rate. It is inherently obvious that the predetermined spin rate is within a minimum and maximum value.

Claim 10:

Disclosed is a device that determines the occurrence of at least two events consisting of a muzzle exit, a predetermined spin rate and a predetermined number of turns and inherently arming the fuze. It would have been obvious that during the use of the device of Kurschner the method steps of determining the occurrence of at least two events consisting of a muzzle exit, a predetermined spin rate and a predetermined number of turns and inherently arming the fuze will occur.

Claim 11:

Disclosed is a method step, as modified, of arming the fuze only if a setback occurs.

Disclosed is single magnetic sensor (20) which can also detect setback. The fuze includes functions that are required by present standards (col. 1-2, lines 60-11) (ie MIL-STD-1316) such as two unique environments being detected. The first usually being setback (applicant's specification, page 1, lines 15-19. The muzzle exit is read as the second environment (col. 7, lines 43-46) and setback is inherently read as the first environment.

Claim 12:

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Disclosed is a method step, as modified, of arming the fuze only if the event of muzzle exit occurs within a predetermined time from when setback occurs.

Claim 13:

Disclosed is a method step, as modified, of arming the fuze only if the spin rate is between a predetermined minimum and maximum spin rate.

Claim 14:

Disclosed is a method step, as modified, of arming the fuze only after the projectile has turned a predetermined number of turns.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



jml  
November 29, 2004

Conferees

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